

L10 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2004:446919 CAPLUS  
 DOCUMENT NUMBER: 141:7630  
 TITLE: Process for the epoxidation of

olefins with hydrogen peroxide in the presence of titanium zeolites  
 Hass, Thomas; Hofen, Willi; Wolfgang; Brasse, Claudia; Stochiol, Guido; Ullrich, Norbert  
 Degussa AG, Germany; Uhde GmbH  
 Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1424331	A1	20040602	EP 2002-26241	20021126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
WO 2004048354	A1	20040610	WO 2003-EP13213	20031125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD				
RW: BW, GM, GR, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPL. INFO.: EP 2002-26241 A 20021126

AB The present invention refers to a process for the catalytic epoxidn. of olefins in the presence of a titanium containing zeolite catalyst and a polar solvent whereby the deactivation of the catalyst upon recycling of the solvent has been considerably reduced. In the process one or more nitrogen containing compds. are introduced at some stage, a solvent stream is recovered, treated to contain less than 50 wppm nitrogen in the form of organic nitrogen compds. and at least a part of it is recycled to the epoxidn. step. The invention is also directed towards a process for the catalytic epoxidn. of propene which integrates the inventive treatment and recycle of the solvent into the workup of the reaction mixture

L10 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)  
 hydro-alc. mixt. of the flash column bottom, is used, when necessary, for dily. the alc. or hydro-alc. soln. of hydrogen peroxide obtained in step (a) to the value required by the epoxidn. plant. The process operates under high safety conditions and with a high overall efficiency, in terms of productivity and selectivity.  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L10 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:142694 CAPLUS  
 DOCUMENT NUMBER: 136:184272  
 TITLE: Integrated process for the

preparation of olefin oxides  
 Papatatto, Giuseppe; Forlin, Anna; De Alberti, Giordano; D'Aloisio, Rino; Tregon, Paolo  
 Enichem S.p.A., Italy  
 ECT Int. Appl., 61 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002014299	A1	20020221	WO 2001-EP9076	20010806
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2000M11884	A1	20020211	IT 2000-M11884	20000811
IT 1318682	B1	20030827		
AU 2002013848	A5	20020225	AU 2002-13848	20010806
EP 1307435	A1	20030507	EP 2001-982202	20010806
EP 1307435	B1	20040225		
R: BE, DE, ES, FR, GB, NL, SI, LT, LV, RO, MK, AL				
JP 2004050627	T2	20040304	JP 2002-519441	20010806
US 2004054200	A1	20040318	US 2003-343832	20030925
PRIORITY APPL. INFO.: IT 2000-M11884 A 20000811				
			WO 2001-EP9076 W 20010806	

AB The present invention relates to an integrated process for the preparation in continuous of epoxides which comprises: (a) preparing an alc. or hydro-alc. solution of hydrogen peroxide in a concentration of over 3%, using a gaseous stream containing hydrogen, oxygen and an inert gas, in the presence of a bimetallic catalyst based on palladium and platinum as active components; (b) putting the alc. or hydro-alc. solution of hydrogen peroxide obtained in step (a) in contact with an olefin and a buffering agent, in the presence of an epoxidn. catalyst suspended in the reaction solvent, in order to obtain a reaction mixture containing the epoxide corresponding to the olefin, water and alc. solvent; (c) treating the alc. stream leaving step (b), after separation of the epoxide, in order to eliminate the nitrogenated compds. present; (d) feeding the alc. solvent obtained in (c) to step (a). The process may comprise a further step (e), wherein the raw

L10 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:98455 CAPLUS  
 DOCUMENT NUMBER: 134:147992  
 TITLE: Production of epoxides by

epoxidation of olefins with regeneration of catalyst  
 Ponceau, Marianne; Muller-Markgraf, Wolfgang  
 Linde Aktiengesellschaft, Germany  
 Eur. Pat. Appl., 9 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1074547	A1	20010207	EP 1999-115532	19990805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPL. INFO.: EP 1999-115532 19990805				

AB In the liquid-phase epoxidn. of ethylene and propylene to their resp. oxides over a catalyst in the presence of H2O2 in a reactor, the catalyst is regenerated outside the reactor with aqueous H2O2 in the absence of olefin, while using MeOH as solvent in both processes. Examples were given for a Ti/silicate catalyst in the production of propylene oxide; product yield was around 80% through 7 catalyst recycles.  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

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(FILE 'HOME' ENTERED AT 18:37:43 ON 13 NOV 2004)

FILE 'CAPLUS' ENTERED AT 18:38:01 ON 13 NOV 2004

L1 161833 S OLEFIN?  
L2 97137 S OLEFINS  
L3 0 S L1 AND EPOSID?  
L4 6072 S L1 AND EPOXID?  
L5 2926 S L4 AND (PROCESS OR MAKE OR MADE OR SYNTHES? OR PREPAR?)  
L6 1452 S L5 AND EPOXIDATION  
L7 1179 S L6 AND CATALY?  
L8 265 S L7 AND HYDROGEN PEROXIDE  
L9 25 S L8 AND TITANIUM SILICATE  
L10 3 S L9 AND NITROGEN?

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	40.73	40.94
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-2.10	-2.10

STN INTERNATIONAL LOGOFF AT 18:43:17 ON 13 NOV 2004